

UNIVERSITY OF ALBERTA

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Almost everything you wanted to know about super volcanoes except when the next one's going to blow

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# U of A introduces fall reading week

Michael Brown

n an effort to improve student mental wellness and academic success, the University of Alberta will be instituting a fall reading week beginning in 2015.

"Today we celebrate what is perhaps, in the 10 years I've been at the University of Alberta, the clearest example of all of those different groups coming together to define something that is clearly in the best interest of faculty, students and staff at the university," said U of A provost Carl Amrhein, who along with outgoing Students' Union president Petros Kusmu, signed the fall reading week into existence.

Scheduled to coincide with the Remembrance Day holiday in November, the fall break, dubbed "Green and Gold Week," has been in the works for nearly four years after the Students' Union, led by former SU president Nick Dehold, presented the idea to U of A administrators and began consulting with various campus stakeholders.

A series of campus consultations and resounding support from the student body, which voted overwhelmingly in favour of the fall break in a 2011 plebiscite, has culminated in the current proposal, which reflects a break that would involve the largest number of students. This proposal received unanimous support from Students' Council and a ringing endorsement from the General Faculties Council March 24.

To achieve this goal, Kusmu says the week will not result in any reduction in instructional minutes for courses, while maintaining a semester start date that will not begin before Sept. 1.

Kusmu says the fall break will allow students to catch up with their studies, earn money to help pay for their education, visit with family and friends, and give students a break at a time when the university traditionally starts feeling the fallout of student stress.

"We are giving the students a break at a time when, frankly, we start seeing students get stressed out and we see some of the highest numbers of visits to our mental health centre," said Kusmu.

"The fall break is not the silver-bullet solution to issues like student retention, student mental health or student engagement, but I feel it will demonstrate the University of Alberta is a national leader in supporting students' success."

He added, "It shows that this is a caring academy."

## Denied



Kurtis Mucha makes one of his 20 saves against the University of Saskatchewan Huskies in helping his Golden Bears hockey team win the program's 14th national championship. See story page 8.

## \$12.7M in Canada Research Chairs announced for U of A

Bryan Alary

ackling big challenges like reducing the world's carbon dioxide emissions sometimes starts with small ideas—tiny, in fact.

As a leading authority in nanotechnology, Carlo Montemagno is used to starting small to tackle big-picture problems. The University of Alberta professor in the Department of Chemical and Materials Engineering leads a team of 35 researchers from a range of disciplines who are doing just that, taking cues from nature to develop next-generation materials to solve problems in environment, energy and health.

That's also his aim as the newly appointed Canada Research Chair in Intelligent Nanosystems.

"Our work is about harnessing the power of 'n'—nature, nanotechnology and networks," said Montemagno, one of 11 U of A faculty members who received CRC appointments, renewals or tier advancements worth \$12.7 million, the highest total of any university in Canada. "We use living systems in nature as the inspiration; we use nanotechnology, the ability to manipulate matter at its smallest scale; and we build systems



Ed Holder, minister of state for science and technology (seated), and Edmonton-Leduc MP James Rajotte (back right), receive an introduction to nanotechnology research from Julie Qian and Carlo Montemagno (back centre), newly appointed Canada Research Chair in Intelligent Nanosystems.

in the understanding that we have to make these small elements work together in complex networks."

The physical home of this work is Ingenuity Lab, a collaboration between the U of A, the National Institute for Nanotechnology and Alberta Innovates – Technology Futures. Montemagno is the director, and he has assembled a team of top scientists with backgrounds in biochemistry,

organic chemistry, neurobiology, molecular biology, physics, computer science, engineering and material science.

Reducing greenhouse gases is one of the challenges his team is working to address, by capturing carbon dioxide emissions and converting them into high-value chemicals.

Montemagno said the process involves mimicking photosynthesis,

using engineered molecules to create a structure that metabolizes CO2. Unlike fermentation and other processes used to convert chemicals, this method is far more energy-efficient, he said.

"You make something that has the same sort of features that are associated with a living process that you want to emulate."

In another project,
Montemagno's team has turned to
cells, viruses and bacteria and how
they identify chemicals to react to
their environment, with the aim of
developing "an exquisite molecular
recognition technology" that can
find rare precious metals in dilute
quantities for extraction. This type
of bio-mining is being explored
to transform waste from a copper
mine into a valuable product, and
ultimately could benefit oilsands
operations as well.

"The idea is converting waste into a resource and doing it in a way in which you provide more economic opportunity while you're being a stronger steward of our natural resources."

See page 3 for more about the U of A's newest Canada Research Chairs

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# Chancellor emeritus honoured for advancing education

Michael Brown

Then Eric Newell took over as CEO of Syncrude in 1989, he was faced with a world-changing opportunity and a province-sized problem.

Development of Alberta's oilsands was still struggling to find its footing but, with the right investment, was on the verge of thrusting Alberta into the world's energy spotlight.

A large part of that investment would come in the form of people. Unfortunately, shortages of professionals ranging from engineers and scientists to skilled tradespeople threatened to stop the oilsands in its tracks.

We were looking to get oilsands going again and realized if we didn't get more people pursuing all levels of education, we weren't going to have the workforce we'd need to undertake this development; in fact, we could kiss oilsands development goodbye," remembered Newell.

With that, Newell embarked on a mission of education that would rock every post-secondary school in the province—none more so than the University of Alberta.

"After awhile, we had so many partnerships with the University of Alberta, and not just in engineering technology, but a bunch of different areas," said Newell of the numerous partnerships he helped forge with the U of A looking at all aspects of oilsands development, from extraction to remediation, and encompassing legal and even social ramifications. "I remember when we first ran into the problem of workplace literacy. We knew how to make oil but we didn't know what to do there, so we came to the U of A and that ended up in a very good workplace literacy program."

That was the genesis of a passion for education that recently earned Newell the Distinguished Friend of Higher Education award from the Council for Advancement and Support of Education (CASE). The award honours an individual whose volunteer service has helped to advance education at an educational institution—even though he or she is not a graduate of that institution



Eric Newell receives a ribbon shirt from Tracy Bear in 2012 in recognition of his work with Aboriginal group

As his partnerships with the U of A grew, so did Newell's attachment to his adoptive school. Newell, who received his post-secondary education at the University of British Columbia, sat on the U of A Board of Governors from 1996-2002, the final four years of which he served as board chair. In 2003, Newell stepped down as CEO of Syncrude and in 2004 was installed as the university's 18th chancellor.

As a university governor and in the role of chancellor, Newell became known for his ongoing efforts to strengthen partnerships between education and business, and for championing corporate social responsibility.

Upon leaving the role as chancellor, Newell kept on giving to the university. He and his

wife Kathy donated \$1 million to kick off the fundraising for an Aboriginal gathering place to be built on campus.

Now entrenched as a pillar at the U of A. Newell had only a brief retirement before university provost Carl Amrhein made him a special assistant to the provost and put him back to work.

"Eric is one of the very rare people who has a detailed understanding of both industry and the academy," said Amrhein. "He has worked tirelessly to build bridges between post-secondary institutions and employers. Eric is dedicated to helping young people, especially those with fewer family resources. He has championed career opportunities in many settings, and worked to create understanding within institutions to make changes in programs to better prepare learners for their careers.

"And though the university has become his home away from home, Newell's passion for education knows no boundaries.

He founded a group called CAREERS: The Next Generation, a career-awareness program available in more than 550 high schools in Alberta that provides work experience for young people trying to find career pathways into everything from the skilled trades to health services.

Newell has been also been active advocating for advancement and educational opportunities for Aboriginal youth. In 2012, he was the recipient of the Award for Excellence in Aboriginal Relations by the Canadian Council for Aboriginal Business and award sponsor Sodexo Canada, an award he accepted at the U of A. Newell has also received honorary degrees from the U of A, Athabasca University, UBC and the University of Lethbridge, as well as an honorary diploma from NAIT.

"The critical thing is, once you get the education of the youth up, education is a great equalizer of opportunity."

# U of A spinoff company unveils new lab-on-a-chip

quila Diagnostic Systems, a spinoff company from the University of Alberta, achieved a milestone in developing its lab-on-a-chip malaria detection kit, with a favourable assessment from the Geneva-based Foundation for Innovative New Diagnostics.

FIND is an international, independent non-profit devoted to developing and implementing affordable, easy-to-use diagnostic technologies for diseases of poverty. Its study showed Aquila's Accutas diagnostic system achieved results superior to those of current malaria testing systems.

"Although this new technology is still in development and further evaluation of the suitability of its use in endemic disease settings is needed, it opens up the possibility of using a simple and highly sensitive molecular test at the point of care for the diagnosis of malaria and other bloodborne infections," said Mark Perkins, the foundation's chief scientific officer.

Causing one million deaths a vear, malaria has been identified by the Bill and Melinda Gates Foundation as one of the world's top four health challenges. Accurate and sensitive detection of the malaria parasite is a critical part of the fight to eliminate the disease.

Aquila's portable Accutas system delivers rapid, low-cost test results using a disposable plastic cartridge to detect blood-borne pathogens. Aquila's genetic detection technology is protected and under licence from the U of A.

Aquila works closely with malaria expert and researcher Stephanie Yanow of the Alberta Provincial Laboratory for Public Health and

the U of A's School of Public Health.

"The Accutas will empower communities in Africa and elsewhere to rapidly diagnose

Stephanie Yanow

malaria and provide immediate treatment," said Yanow. "Accutas could save the lives of hundreds of thousands of children who die from malaria every year.'

Jason Acker, Aquila's chief technology officer and an associate professor in the Department of Laboratory Medicine and Pathology at the U of A, said he sees enormous value for the Accutas technology in supporting global efforts to develop malaria vaccines and helping in the battle to eradicate malaria around the world.

We are committed to bringing the Accutas to market to meet the needs of front-line health-care providers, vaccine developers, travellers and industry in malaria endemic regions," said Acker. "The Accutas malaria detection kit is the first product we will bring to market. We have other cartridges under development for the livestock, aquaculture and water testing markets that have global market potential."

# Crowdfunding successfully supports 3 student projects

Folio Staff

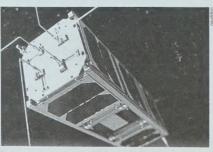
Then physics professor Ian Mann and his team of 60 student researchers who are building the first made-in-Alberta satellite started looking for funding for their project, they thought of Kickstarter.

Instead, they raised \$35,000—the first part of their \$60,000 launch fee—through the University of Alberta's new crowdfunding platform, without any of the paperwork, fees and hassle associated with independent platforms.

The satellite mission is one of three student projects that recently raised more than \$60,000 collectively through the crowdfunding platform. Another team raised more than \$10,000 to make Pride Week 2014 activities more accessible, and a group of students who are expanding the Play Around the World youth

recreation project into the Canadian North raised more than \$15,000.

"Crowdfunding enhances the U of A's traditional and existing sources of philanthropy, providing an additional, fun way to help student initiatives and campus projects achieve excellence,"



The first made-in-Alberta satellite project raised \$35,000

said O'Neil Outar, vice-president of advancement. "I encourage anyone looking for new ways to support their project or research to apply and see what might be possible through this mechanism.' Of the 697 donors who supported the first

three crowdfunding projects, 37 per cent were alumni and almost half were new supporters to the U of A.

All crowdfunding projects run for 30 days, have to be related to a university purpose and must have student involvement. The most suc cessful campaigns are looking to raise \$5,000

The U of A is the first university in Canada to partner with USEED in making this opportunity available to students and researchers across campus.

For more information, visit advancement. ualberta.ca.

# Professor gives grad students an early start in translating research

Donna Richardson

Tania Bubela is known for her innovative research and her passion for engaging and mentoring graduate students. Now, the newly minted McCalla Professor will combine those interests to tackle a priority of both the U of A and the Alberta government: how to translate the research of Alberta faculty and students to address real-world problems affecting communities.



Tania Bubela

Bubela, associate professor with the School of Public Health, is trained as a biologist and is also qualified in law. She is a national expert on the ethical, legal

and social dimensions of novel health biotechnologies. Under the terms of the McCalla Professorship, she will further integrate her teaching and research by developing case-based training modules and instructor resources related to commercialization and translation of publicly funded biomedical research.

Bubela's approach will cut across disciplines, and she intends to collaborate with colleagues in other faculties, including

medicine and engineering.
"As one of Canada's leading research institutions, the University of Alberta is highly focused on translational research and commercialization," said Bubela. "Yet there are limited training opportunities available for graduate students. It is important to introduce these concepts about being entrepreneurial at an earlier stage of their training."

She plans to pilot two training modules that will be available to graduate students in health, life sciences and biomedical engineering programs at the University of Alberta. The aim is to give students an understanding of all of the steps necessary to move research into practical settings.

"It takes a lot to move the research from the laboratory into practical application,"

she explains. "There is more to it than a great idea and doing cool research."

Bubela is enthusiastic about the potential of the training modules for students. "This will contribute to the knowledge base of graduates so they are better able to work with external partners, including industry, in order to better understand the challenges of bringing new technologies to market.

Kue Young, dean of the School of Public Health, sees this award as well-deserved recognition of Bubela's work and as a strategic investment for the university.

"Her proposal to integrate research and teaching under the terms of the McCalla Professorship is innovative, exciting and timely," said Young. "The learning modules she will develop will benefit not just colleagues and students in the school, but also those in other faculties and departments in the life sciences, engineering, law and humanities."

"In my experience, students learn most effectively when instructors not only have content expertise, but are passionate about their subject matter," said Bubela. "Students' research doesn't need to be purely academic. There are ways to move it forward so that it can be of greater value

The McCalla Professorship is named after the first dean of the Faculty of Graduate Studies and Research, McCalla Professors value excellence in teaching, acknowledge the importance of students, conduct themselves in an ethical manner, are collaborative and open to change, take pride in history and traditions, and are committed to integrating their research and teaching.

#### 2014-15 McCalla **Professorships**

Yasmeen Abu-Laban (Political Science) Rhonda Bell (Agricultural, Food and Nutritional Science)

Tania Bubela (School of Public Health) Andreas Hamann (Renewable Resources) Frank Hegmann (Physics)

Armann Ingolfsson (Accounting, Operations and Information Systems)

Patricia Manns (Physical Therapy) Pierre Mertiny (Mechanical Engineering) Christina Rinaldi (Educational Psychology)

Read the abstract of each McCalla Professorship recipient at provost.ualberta.ca/ AwardsandFunding/mccalla.aspx.

### Introducing the U of A's latest 11 Canada Research Chairs

The University of Alberta was both pleased and honoured to have hosted the March 28 national Canada Research Chairs announcement, said Lorne Babiuk, vice-president of research, With 11 new and renewed CRC appointments and tier ad vancements, the U of A is now home to nearly 100 chairholders across the humanities, social sciences, health and natural sciences and engineering.

The number of chairholders is just one dem onstration of the talent, expertise and passion for discovery at the U of A, said Babiuk.

The Canada Research Chairs program is an important federal investment that helps the University of Alberta secure talent—people of character and vision who challenge and redefine the limits of what's possible," he said. "These are the world's best and brightest, working to advance knowledge and address some of the world's most pressing challenges.

In addition to Montemagno, four researchers received new Tier 1 appointments: Fred Colbourne (Science), Kathrin Koslicki (Arts) James Shapiro (Medicine & Dentistry) and João Soares (Engineering).

Mark Glover (Medicine & Dentistry) was advanced to a Tier 1 chair, and Gavin Oudit (Medicine & Dentistry) and Ben Willing (Agricultural, Life and Environmental Sciences) received new Tier 2 appointments. Engineering researchers Murray Gray (Tier 1), Zhenghe Xu (Tier 1) and Mojgan Daneshmand (Tier 2) received chair renewals.

#### Fred Colbourne: Neuroscience maps new pathways in brain injury treatment

Some 50,000 Canadians suffer from stroke each year, the vast majority caused by interrupted blood and oxygen flow to the brain, or cerebral ischemia. Colbourne, Tier 1 CRC in Intracerebral Hemorrhagic Stroke, is working to improve rehabilitation for patients, finding neuroprotective treatments such as mild hypothermia to reduce ischemic and perhaps hemorrhagic brain damage, and improve recovery

#### Mojgan Daneshmand: Microscopic technology, big results

Daneshmand, Tier 2 CRC in Radio Frequency Microsystems for Communication and Sensing, is looking at using wireless technology to save lives. She works with tiny micro-electromechanical systems, or MEMS, that make it possible for researchers to develop "smart" products-taking what micro-electronics can do already but creating whole computer systems on a single chip. She will apply radio frequency and MEMS to mobile and satellite communication and biomedical applications, an approach that can determine, for example, how to measure pressure in the brain for patients who suffer from head injuries or brain diseases.

#### Mark Glover: Defending DNA from damage

Human DNA is under constant attack from a bewildering array of environmental factors, from chemicals to radiation. To protect genetic information, all living things have evolved ways to find and repair DNA damage—the primary defence against DNA mutations that cause cancers. When these systems are compromised through inherited genetic mutations, it's often linked to hereditary cancer risks—the best known of these is the protein BRCA1, associated with breast and ovarian cancers. Glover, Tier 1 CRC in Structural Molecular Biology, uses protein imaging to reveal how BRCA1 and other proteins function as a DNA defender. He is now looking at finding new ways to inhibit tumour growth by selectively targeting DNA repair systems in cancer cells.

#### Murray Gray: Purifying bitumen

Almost a quarter of Canada's liquid hydrocarbons are produced from the oilsands, a proportion that is expected to reach 50 per cent. This increased reliance on synthetic crude requires new and improved technologies in bitumen upgrading to improve product quality and yield, and decrease energy consumption and greenhouse gas emissions. Gray, Tier 1 CRC in Oilsands Upgrading, is working on developing better methods to measure the viscosity and surface tension of bitumen during high-temperature cracking, and investigating new applications of biotechnology to purify the product oil derived from bitumen.

### Kathrin Koslicki: How a philosopher studies

Koslicki, Tier 1 CRC in Epistemology and Metaphysics, is positioning Canada and the U of A

to take a lead in modern metaphysics, the "study of being in its most general form." Her work incorporates the tools of formal logic and aims for compatibility with science. In a recent work, she focused on the question of how the parts of obiects are related to the whole they compose: "For there to be an H2O molecule, the two hydrogen atoms and one oxygen atom that compose it must be arranged in the particular manner of chemical bonding, which requires the atoms in question to share electrons

#### Gavin Oudit: Discovering ways to treat heart failure

New heart failure therapies are desperately needed, and Oudit is taking several novel approaches to drug discovery and its application to patients. The new Tier 2 CRC in Heart Failure is using the human explanted heart program (HELP) at the Mazankowski Alberta Heart Institute as a bridge for cardiovascular medicine, focusing on patients rather than animal models. This approach is aimed at translating discoveries to help people live better and longer lives.

#### James Shapiro: Transforming transplants through regenerative medicine

Organ transplantation is life-saving and cost-effective, but transplantable organs remain in short supply. James Shapiro, Tier 1 CRC in Transplant Surgery and Regenerative Medicine, aims to increase the quality and number of donor organs using ex vivo "life support," and explore regenerative medicine stem cell technologies for curative treatment of diabetes. Protecting and even repairing donated organs could decrease

injuries related to organ recovery and transport, leading to a substantial increase in the supply of organs suitable for transplantation. Shapiro will also build on progress made in cellular transplantation of human beta cells, which could have a huge impact on the curative treatment of diabetes.

#### João Soares: Designing polymers for oilsands sustainability

Oilsands are a significant, strategic resource for Canada—and the world's second-largest source of crude oil. Despite technological advances in extraction techniques, large volumes of high-water-content tailings remain an unsolved problem. Soares, Tier 1 CRC in Advanced Polymer Reaction Engineering, aims to improve methods of dewatering tailings, harnessing polymer reaction engineering techniques to potentially reduce or eliminate tailings ponds.

#### Ben Willing: Understanding how our microbes shape who we are

The human gastrointestinal tract is home to hundreds, if not thousands, of microbial species that outnumber human cells 10 to one. Taking antibiotics makes potentially lifelong alterations to these gut microbes, and microbial population imbalance plays a role in health, affecting conditions such as diabetes, heart disease, cancer, asthma and inflammatory bowel disease. Willing, Tier 2 CRC in Microbiology of Nutrigenomics, aims to determine how specific microbes affect the production of molecules that affect human health. This work will provide an important foundation on which to build strategies for developing new pre- and probiotics-using diet to promote health.

#### Zhenghe Xu: Getting the oil from Canada's oilsands

Xu, Tier 1 CRC in Mineral Processing, is addressing a major challenge facing the oilsands industry: finding the best possible way to separate the bitumen from the sand while respecting the environment as well as cost requirements. In mineral processing, mined ores are first crushed and ground to break minerals and metals off waste rocks (liberation). The liberated minerals and metals are then separated by physical methods such as gravity separation, magnetic separation, electrostatic separation and flotation. Xu's research is focused on clarifying the colloidal interactions involved in flotation and developing a more versatile, effective separation process

In 2000, the Government of Canada created the Canada Research Chairs program to establish 2,000 research professorships in eligible degree granting institutions across the country. The program invests \$300 million per year to attract and retain some of the world's most accomplished and promising minds.



Ed Holder, minister of state for science and technology (centre) is joined by U of A Canada Research Chairs (back, left): Murray Gray, James Shapiro, Carlo Montemagno, João Soares, Fred Colbourne, Kathrin Koslicki and Ben Willing, along with Edmonton-Leduc MP James Rajotte, Ted Hewitt, executive vice-president of the Social Sciences and Humanities Research Council, CRC Mojgan Daneshmand, Lorne Babiuk, vice-president of research at the U of A.

# Truth and Reconciliation commissioner 'owes everything' to U of A

hat do you mean you're quitting? Nonsense! said Clare Drake over the phone. Practice starts at 5:30—be there!"

It was a low point in Willie Littlechild's days at the U of A. The physical education student and Golden Bears hockey player was overwhelmed with the unfamiliar demands of university life, so he decided to throw in the towel and head back to the reserve. As one of very few Aboriginal students on campus during the 1960s, he was lonely at times, he says. He was also battling memories of abuse as a Cree child at the Ermineskin Indian Residential School.

But after that bracing call from the legendary Golden Bears hockey coach, Littlechild gave his head a firm shake, took a deep breath and hitchhiked from his home in Hobbema (now Maskwacis) back to Edmonton, arriving just in time for practice.

Looking back, that crucial moment was perhaps the most important affirmation of his life's journey, as he would soon finish his bachelor's degree and then complete a master's in physical education. He would also become the first Treaty Indian in Alberta to earn a (U of A) law degree, moving on to a brilliant career as a lawyer, a member of Parliament for Wetaskiwin-Rimbey and chief for treaties 6, 7 and 8.

"I owe my life to hockey and my university education—it opened up the whole world for me," says Littlechild, who was awarded the U of A's Distinguished Alumni Award in 1999 and received an

honorary doctorate from the university in 2007.

"I don't think I would have stayed even a year had it not been for the Golden Bears. It was because I had an immediate group of friends as teammates, and because I had to be at practice every day and keep my marks up. There was a motivation and discipline pressing me to stay there, and Clare Drake was a kind of father figure to me."



Willie Littlechild

Today Littlechild is one of three commissioners on Canada's Truth and Reconciliation Commission which is holding its final national meeting in Edmonton this weekend. Since 2008, the commission has travelled to more than 600 communities across Canada, hearing thousands of stories of the abuse of 150,000 Aboriginal children, removed from their families and placed in residential schools between 1870 and 1996.

Some 12,000 survivors live in Alberta, and Littlechild is one of them. For him, bearing witness is both powerful and poignant.

When I heard those different painful stories of how people were mistreated as a child, that's me—it's my own journey over and over again," he says. "I have a very traumatic and negative history, and when I hear the stories of abuse. I go down to the depths with the speaker."

Littlechild recalls the racist slurs, the strict prohibition on speaking his native tongue when he knew not a word of English, and the physical abuse: "I remember one time getting a severe beating with a hockey stick for something I didn't do, and I just wouldn't give in. The worst of all, of course, is the sexual abuse, and that whole range of abuse-that's me."

But the stories emerging from the TRC are not all pain and despair, he says. Occasionally more positive stories of humour and kinship emerge from the darkness.

"Maybe it's selective hearing, but it seems to me many of the positive experiences former students [of residential schools] were talking about were tied in with sports. The girls especially say that without basketball or volleyball or track and field, they wouldn't have made it. The boys say the same about hockey.

"The contribution of sports to our survival and success is huge. When I got to university, hockey and education were so intrinsically linked."

As the TRC wraps up and the commissioners prepare their recommendations for social change, the biggest fear is that their report will be shelved and forgotten,

says Littlechild, much like the Royal Commission on Aboriginal Peoples of 1996. To make sure that doesn't happen, he will encourage his fellow commissioners to shape a small number of pointed, realistic recommendations, he says. rather than producing a long list that could run the risk of neglect.

The saddest thing would be for me to go through this experience of repeating this history

and not have any change because the recommendations aren't well directed. I've seen both sides: I've seen the loss of hope in kids in an eighth-grade classroom who say, 'I'm just waiting to die.' And I've seen the positive hope in children who expect from us a better future. You can see the difference in their eyes.

"It might be our one and only chance, so we have to do it right."

## U of A offers expression of reconciliation

**News Staff** 

**♦** The University of Alberta is committed to creating awareness among its 39,000 students and the larger community about the impact on Canada's Aboriginal Peoples of the residential school system, and about the importance of building understanding

Chancellor Ralph Young read out the university's expression of reconciliation March 29 to the Truth and Reconciliation Commission of Canada, during the historic panel's final national gathering held in Edmonton.

The commission was established nearly five years ago with a mandate to learn and share the truth with all Canadians about what happened in the residential schools, and to guide a process of healing towards reconciliation and renewed relationships between Aboriginal and non-Aboriginal Canadians.

Recognizing that the U of A's campuses are situated on territory that is encompassed by Treaty 6 and that includes traditional places for Aboriginal Peoples, Young affirmed the university's commitment to becoming a leader in raising awareness "of the negative impacts of colonization and the importance of building more respectful relationships" between Aboriginal and non-Aboriginal Canadians.

The impacts of the residential school system continue to affect the lives of 12,000 survivors as well as many intergenerational survivors in Alberta, some of whom are members of the U of A community, and as a result, Young said, the university is working to become a leader in building awareness.

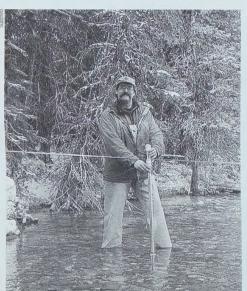
In working towards that commitment, the university is home to the only Faculty of Native Studies in Canada and recently developed mandatory credit courses in Aboriginal/Indigenous education, histories and contexts offered by the Faculty of Education. As well, the U of A is guided by an Aboriginal Strategy document that recognizes and supports Aboriginal perspectives in developing curriculum and research, creating welcoming environments and contributing to "ongoing public conversations about the relationships between Aboriginal and non-Aboriginal Canadians," Young said in the expression of reconciliation.

Young also expressed the university's support for the goals of the Truth and Reconciliation Commission and, thanking the commission for its work over the years, noted with pride that Commissioner Chief Wilton Littlechild is a U of A alumnus.

The expression of reconciliation, bearing University of Alberta letterhead, was laid in a ceremonial bentwood box following the reading.

## ALES researcher earns major national water award

forest hydrologist with the Faculty of Agricultural, Life and Environmental Sciences received a national water stewardship award bestowed by Canada's 13 premiers.



The Southern Rockies Watershed Project, conducted by Uldis Stewardship Award from the Council of the Federation.

The Department of Renewable Resources' Uldis Silins and his team won the Excellence in Water Stewardship Award from the Council of the Federation, for outstanding achievement, innovative practice and leadership in the area of water stewardship.

Silins and his research team were honoured for their work on the Southern Rockies Watershed Project, which documents the effects of wildfire on hydrology, water quality and stream ecology in the region.

Recognized internationally as one of the leading studies of its kind, the project was described by the Alberta Innovates Water Sustainability Program, an international scientific review panel, as "...the first major effort globally to provide a comprehensive assessment of forest disturbance impacts from source

Following the Lost Creek wildfire in the southern Rockies in 2003, which burned 210 square kilometres in the Old Man River Basin, Silins' research team examined how the fire affected the quality and quantity of water produced in the area and the downstream effects, namely drinking water in downstream communities that depend on water supplies from Alberta's Eastern Slopes.

They found the fire produced a large amount of sediments, increased levels of phosphorus and nitrogen, and a small increase in the level of mercury. The level of nitrogen returned to normal within three or four years but the level of phosphorus has remained high.

Accordingly, plant life productivity in the headwaters, which typically have few nutrients to support much plant life, has increased significantly, as has biodiversity. Although mercury levels rose, the increase didn't warrant a consumption warning.

Silins and his group continue to work with water treatment engineers, looking at the implications of their findings for downstream communities.

The next phase of research will look at the impact of a range of forest harvesting strategies on water resources in the headwaters and further downstream to provide information needed to develop frameworks for source water protection.

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# Community Connections Award winners honoured for uplifting impact

Michael Brown

First Nations children's advocate, a long-running musical ensemble and a member of the first family of University of Alberta advocacy are all to be honoured for their tireless work embodying the spirit of the University of Alberta's promise of "uplifting the whole people."

Cindy Blackstock, the U of A Mixed Chorus and Jim Hole will receive 2014 Community Connections Awards May 13 at a ceremony at City Hall in recognition of the positive impact they have had on communities near and far, and on the university.



Cindy Blackstock was named this year's unity Scholar Award winner

"The University of Alberta has been connected to its communities since its founding in 1908," said Debra Pozega Osburn, vicepresident of University Relations. "In fact, our founding president,



The U of A Mixed Chorus won the Community Leader Award.

Henry Marshall Tory, noted that relationship in his first convocation address when he said, 'knowledge shall not be the concern of scholars alone; the uplifting of the whole people shall be its final goal."

You look at that premise and then you look at the award winners last year and our award winners this year, and you can see the Community Connections Awards are doing exactly that."

For her work with communities, organizations and government to ensure culturally appropriate and equitable services for First Nations children, Blackstock, associate professor in the Faculty of Extension, won the Community Scholar Award.

Blackstock has used her research to empower First Nations children and youth to create social change through the Shannen's

Dream movement for education, to gain parliamentary support for Jordan's Principle protecting access to government services to First Nations children in need, and to lead a historic human rights case on First Nations children's equity. Her research and advocacy activities have been used as models for children's rights movements around the world. In 2013 she was recognized as one of 16 leading female activists in the world by the Nobel Women's Initiative

The Community Leader Award went to the University of Alberta Mixed Chorus for its ambassadorial role on campus, throughout Alberta and beyond—a tradition this wholly student-run group has maintained for seven decades.

The chorus, which is celebrating its 70th anniversary this year, has

seen thousands of U of A students grace its various configurations, immeasurably enriching the lives of its members and its audiences. In addition to a roster of community performances in and around Edmonton through the academic year, the chorus takes annual spring tours throughout Western Canada and beyond, acting as ambassadors for the university and drawing alumni virtually everywhere they perform.



Jim Hole is the recipient of the UAlberta

Jim Hole, son of former U of A chancellor and former Alberta lieutenant-governor Lois Hole, has carried on the family legacy of championing the U of A. His passionate promotion of the university, from his days as a student to his more recent roles serving on the Alumni Council, the Senate and the Board of Governors.

has earned him the UAlberta Advocacy Award.

Hole, one of Alberta's most respected business leaders, has devoted thousands of volunteer hours to advocacy for his alma mater. He has served as president of the Alumni Council, honorary co-chair of the university's centenary celebrations, a member of the U of A Senate and, most recently, as a member of the U of A Board of Governors. He is a constant champion of the university at alumni events and in the community at large. He has been an integral contributor to the U School program, a point of pride for the University of Alberta Senate. He conceived of the innovative Green and Gold Garden contest during the university's 2008 centenary celebrations, a highly successful event that raised the Green and Gold spirit throughout the community. With passion and integrity, he continues to be a university leader and advocate in the tradition of the three generations of Hole family members before him.

The three Community Connections Awards, created by the Office of the Vice-President (University Relations) in 2012, are presented annually.

# Last Lecture winner described as 'quirky, weird, brilliant and inspiring'

Geoff McMaster

obert Burch asks if we can meet in person. He doesn't like phone interviews, claiming, "I don't present myself to best advantage."

Whether or not that's true (one suspects it isn't), the philosophy professor does present himself exceptionally well in the classroom, at least according to the thousands of former students who cast more than 8,000 ballots in the recent Last Lecture competition.

Burch came out on top after some 4,600 people cast more than 20,000 votes in 16 days, beating out David Begg of medicine and history professor Linda Kerr in the final heat. Both former and current students were asked to vote for their favourite instructor, charged with answering this question: "If this were your last time to address a group of students, what would you say to them?"

Burch will present his talk to a sold-out lecture theatre on

The best part of the competition thus far, he says, is that former students have contacted him from around the world after hearing about it through social media.

'I was starting to get a little full of myself," he says. "Some of the people who emailed were students back in the 1980s, and so I had a Goodbye Mr. Chips moment," he adds, referring to the 1969 film which, in its final scene, depicts generations of students saying goodbye to their beloved instructor.

"I was really happy when people who I never expected voted for me, or people who I thought didn't like my classes or seemed at the time like they were only pretending they did."

The effusive praise of Burch's teaching that poured in from around the globe is truly impressive, ranging from statements such as, "He lets us think we are capable of reaching the same enormous conclusions as those discovered by history's greatest thinkers" to, "His mastery of contemporary philosophy, history of philosophy, and literature means that he is what one may call a prophet: one who has insights into his times.

One student remarked, "He's brilliant. And weird. And after one of his classes, I feel like I've not just learned something new, but an entirely new way of thinking.

The Last Lecture is organized by Alumni Relations in partnership with the Students' Union and the Centre for Teaching and Learning. It was inspired by the famous prototype delivered by Carnegie Mellon University professor Randy Pausch in 2007. Pausch gave an upbeat, inspirational talk full of life lessons, called "Achieving Your Childhood Dreams," after learning he had terminal pancreatic cancer.

But don't expect anything like that brand of self-help optimism from Burch. "I know what I don't want to do, and that's the Randy Pausch lecture," he says. "I didn't really know about it until this thing got off the ground, but I looked at it online and said, 'This is just not me.' If my students saw that, they would think I was making some sort of point in a joking way, through parody.

He can't disclose what he'll talk about, mainly because he doesn't believe in scripting his lectures, preferring to jot down half a dozen main points just to keep himself on track

When I lecture, I tell a story. I have an opening and a plot to develop, and it should by the end come to some sort of conclusion that will lead to the next day's lecture."

He does know, however, that he'll likely comment on what it means to be a philosophy professor, "charged with this strange task, which I think is undoable and unintelligible, which is to teach people how to think.

"The idea we use to sell philosophy, that I can teach you to think or think critically, actually turns out to be the opposite of what philosophical thinking is. Providing answers to logically coherent philosophical questions is really the easiest thing in the world to do," he says, especially for smart people, whom he distinguishes from those with a genuinely philosophical disposition.

"The really hard thing to do is ask the right kinds of questions, so I'll make some comments on what it means to think philosophically, and why it is that smart people can't think philosophically."



Philosophy professor Robert Burch will give the Last Lecture April 9.

When it comes to advice, Burch may discuss his own career and the challenge of pursuing his discipline in the academy, which tends, in his view, to value smart thinking over philosophical thinking. For inspiration, he will turn to Thus Spoke Zarathustra.

In Friedrich Nietzsche's 19th-century novel, the ironic prophet gives his last lecture to his disciples, telling them, Well, you found me. You believe in me, but what does that matter. Now you have to find yourself."

The Last Lecture will take place April 9 at 7 p.m., in room 1-430 and the PCL Lounge in the Centennial Centre for Interdisciplinary Science.

# Are You a

Congratulations to Emily Mar, who won a Butterdome butter dish as part of Folio's March 21 "Are You a Winner?" contest. Mar was able to identify the photo as a pop-up book that is part of the "Wow, Open This!" exhibit in the Bruce Peel Special Collections Library. Up for grabs this week is another Butterdome butter dish. To win it, simply name the object in the photo and email your answer to folio@ualberta.ca by noon on Monday, April 21, and you will be entered into the draw.



Winds and leadership in the step of matter accounted by . For some a water, procession, W

# Supervolcanoes and how they could affect global food supply

cientists recently discovered that the Yellowstone National Park supervol-cano is two-and-a-half times larger than previously thought.

With a chamber that is 90 kilometres long, 30 km wide and reaching depths of up to 10 km, it is thought Yellowstone is capable of sending 2,000 times more matter into the sky than when Mount St. Helens blew in 1980.

Martyn Unsworth, a professor of physics and of Earth and atmospheric sciences at the University of Alberta, is studying three volcanos in South America that may have the potential to produce very large eruptions.

Volcan Uturuncu in Southern Bolivia has been inflating by one centimetre per year over a large area, in a region where more than 10 supervolcanoes have occurred in the last 10 million years.

Volcan Lastarria on the Chile-Argentina border has had an uplift of one to two centimetres per year, a rate that is accelerating.

Laguna del Maule in Chile, which is in a volcanic field with no prior large eruptions, but 30 cm per year uplift, has been moved to "Yellow" alert status in last couple of years.

Unsworth's group is taking geophysical measurements at all three sites using electromagnetic waves that can image underground magma bodies, and working out how big they are. The Laguna del Maule study is also related to a geothermal energy project that may extract heat for electricity generation from water that is being heated by the magma body.

#### Q-and-A with **Martyn Unsworth**

Is it possible to tell which volcanoes are supervolcanoes before they erupt? What type of technologies or methods are used to make the determination?

A supervolcano is defined as a volcano that can produce an eruption with more than a thousand cubic kilometres of ejected material. The key is to determine how much magma is stored below them. This requires careful studies, usually centred on geophysical imaging and geological studies of lavas that have been erupted. Seismic studies give useful data, and the work that I do uses electromagnetic waves to measure

location and numbers of small earthquakes is also useful because it tells us if magma is moving.

Is there any way to predict when a supervolcano may go off?

There is great uncertainty about the time scale for a volcano to go from the first signs of unrest to a full-scale eruption. Estimates vary all the way from months to years to decades. I am working at several restless volcanos in South America. At each volcano, the key data are very accurate measurements of the elevation of the surface. One volcano in Chile has shown 30 cm per year uplift for five years. This clearly

surface, but who knows when it might erupt? The surface is showing signs of small cracks and faults developing.

Are there regions that should make emergency plans? What type of emergency plans?

For Yellowstone, the United States Geophysical Survey has extensive monitoring networks to look for changes, and the state and federal government have emergency plans.

In South America, plans are less developed. The study we do in Bolivia is in a sparsely populated area, and Bolivia lacks resources to monitor. This is an example of how our research can have very practical benefits. The volcano in Chile is well monitored and has been moved to an elevated alert status several times in recent years in response to increases in earthquake activity.

Would a supervolcano eruption at any of those locations have a visible effect

Impacts in Canada from Andean eruptions would be limited in the short term, but a period of climate change and cooler temperatures could disrupt global food supply.

A Yellowstone eruption could dump ash on us. There is ash in the Edmonton river valley (by the LRT bridge) from the eruption of Mount Mazama in Oregon that formed Crater Lake around 6,000 years ago.

A major Yellowstone eruption would have a huge impact on agriculture in the United States—all the grain-producing states are downwind of the volcano.



The Volcan Uturuncu in Southern Bolivia. This large volcano has been inflating by one centimetre per year over a large area, in a region where more than 10 supervolcanoes have occurred in the last 10 million years.

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# Golden Bears cap dominant season with CIS championship

Folio Staff

anked No. 1 nationally for the majority of the 2013-14 campaign, the University of Alberta Golden Bears capped a season of destiny by winning the program's record 14th CIS national championship March 23 with a gutsy 3-1 win over the University of Saskatchewan Huskies at Credit Union Centre in

Third-year physical education and recreation student Levko Koper led the way with a pair of goals—including the eventual winner, a short-handed tally late in the second period—while fourthyear netminder Kurtis Mucha was nearly perfect in turning away 20 of 21 shots he faced en route to the title.

"We're a hard-working teamthat's Bears hockey," said Ian Herbers, second-year bench boss with the Golden Bears. "This weekend we were very aggressive on the forecheck and on the penalty-kill.

We were able to play three very solid games, and that's what you need to win this championship."

Just like the final, wins in the two preliminary games weren't for the faint of heart. Despite a heavy 41-17 shot advantage, the Golden Bears had to hang on to beat the Carleton Ravens 3-2 in their first game of the tournament March 20. Two nights later, the U of A squad survived a scare from the McGill Redmen, eventually eking out a 3-2 win in double overtime, but not



The Golden Bears celebrated the program's 14th national title. (Right) Levko Koper (right) receives congratulations from Travis Toomey after scoring his second goal of the 3-1 championship win over the University of Saskatchewan Huskies in Saskatoon March 23.

before the Redmen netminder batted away 52 Golden Bears shots.

The win is sweet vindication for Herbers, who in his first year guided his No. 1 ranked Golden Bears to the 2012-13 national championships only to watch a regular season for the ages end unceremoniously 2-1 at the hands of the upstart University of Waterloo Warriors in game 1 of the tournament.

"It was a long time coming," said Herbers, who also won a title as a player with the Golden Bears back in 1992. "The guys worked so hard all year, going back to their off-season training last summer. There's so much leadership in our locker room. The focus and determination of our players was phenomenal."

The championship puts an exclamation mark on a remarkable 25-2-1 regular season that also saw the Golden Bears capture an unprecedented 51st Canada West championship.

## True champions in a society of the spectacle

They all have great hockey names: Johnny Lazo, Jesse Craige, Sean Ringrose, Jordan Hickmott, Ian Barteaux, etc. I am referring to the University of Alberta Golden Bears hockey team. I could name every single one of them on the team. They remind me of the Montreal Canadiens in the late 1950s and the 1960s. When I was growing up in Montreal during those years, there was a sense of magic surrounding these players: Maurice "the Rocket" Richard, Henri "the Pocket Rocket" Richard, Jean "le grand Bill" Béliveau, Doug Harvey, Dickie Moore, Bernard "Boom Boom" Geoffrion, Jacques Plante, Jacques Laperrière. The magic came from the dignity of these players: above all, they played with passion, from the sheer love of the game. Not for money. Not for fame. Certainly for their community and their city, Montreal, whether they were French or English speaking. But above all, with a genuine passion for the game.

The same could be said of those Bears, the CIS champions for the 2013-2014 season, regardless of the scale. Most of them dreamed of pro hockey when they were teenagers playing in the WHL. Some of them came close to fulfilling that dream. Nevertheless, even if the dream of a pro career was crushed at some point, they kept playing while making the right choice of completing their education. And they kept playing with passion, even improving in the best hockey program at the university level. I could swear that the pace of a hockey game involving the best teams of the CIS, particularly in the Canada West League, is faster than the pace in the AHL.

In the late 1960s, French critical theorist Guy Debord talked about the "société du spectacle"—the society of spectacle. His thesis was that modern society would transform everything into a spectacle to the point that human beings would live all their emotions through the prism of the spectacle. The society of the spectacle would be one of alienation, of being separated from our own feelings. It would be a society of artificiality with rare moments of authenticity.

In my opinion, pro hockey killed that authenticity and is a perfect example of the society of the spectacle. But a few years ago, I had the chance to see a CIS hockey game between the Golden Bears of the University of Alberta, where I spent my entire academic career, and the Calgary Dinos. Since, I have been following the team with great interest.

On March 8, 2014, in Edmonton, in front of a full house of about 2,500 spectators, when the Golden Bears clinched the Canada West championship in an electric atmosphere, I thought I was back in time, some 50 years ago in the Montreal Forum watching the authentic gods of hockey and their beloved captain Jean Béliveau. Parents, fellow students, friends, and perhaps nostalgic scholars were there that evening to witness a genuine moment of true championship, a feast that was doubled two weeks later with a national championship victory in Saskatoon at the University Cup tournament.

Contrary to Guy Debord's predictions, the society of the spectacle has not transformed everything into artificiality. There are still genuine champions today. Not to mention that at the last Olympics, the women's hockey team, not the men's, captured the country's imagination, and all their players played at one point in the CIS.

Claude Couture, professor and 2009 University Cup winner



#### Bears one of Edmonton's great teams

With a history dating back to 1908, the Golden Bears hockey program at the U of A has won a Canadian Interuniversity Sport record 14 national championships, as well as 51 out of 78 conference championships, and has played in a record 37 national championship tournaments, including a streak of 10 straight from 1997 to 2006. In fact, Alberta has played in more national championship final games (19) than any other program has been to the tournament.

Clare Drake, after whom Alberta's home arena is named, is the backbone of that success, having won six of those national championships as Bears head coach and recording 697 wins, which still stands as a Canadian university record, against 296 losses and 37 ties, for a .695 winning percentage. Above all else, however, Drake's most important contribution was the Golden Bears hockey template that he bequeathed to the program, and to anyone who asked, that continues to foster success at all levels of hockey to this day.

The Edmonton Grads women's basketball program holds the North American record for the sports team with the best winning percentage of all time, having racked up 502 wins and 20 losses between 1915 and 1940 for a staggering winning percentage of .961. The Grads disbanded in 1940 at the outbreak of the Second World War, but not before combining for 108 local, provincial, national and international titles. The Grads were the undisputed

world champions for 17 consecutive years.

The Edmonton Eskimos, of the Canadian Football League, have 13 championships to their credit, second most in CFL history. The Eskimos still own the North American professional sports record for consecutive appearances in the playoffs, with 34, which they achieved between 1972 and 2005.

The Edmonton Oilers own five National Hockey League championship banners, and are still considered one of the greatest dynasties in professional sports history when they won five championships in seven years and produced some of the greatest players in the history of professional hockey.

# Research suggests Albertans support perinatal mental health screening from Alberta Cancer Foundation

fter struggling with anxiety and depression since her teens, Lana Berry hit bottom at age 26. Divorced, unemployed and back living with her parents, she found herself in a dark placesick as I'd ever been.'

Berry persevered, pouring her energy into getting better. She found work, met the love of her life, remar ried and, six years after her low point, found out she was going to be a mom. Given her past, she was understandably anxious about what to expect.

"I did have worries, but I didn't have regular conversations with doctors about depression. They would only ask me casually about how I was doing," said Berry,

Despite her concerns, Berry was never formally screened for depression during or after pregnancy. That's because Alberta, like all other provinces in Canada, does not offer universal prenatal mental health screening, and postpartum screening is inconsistent. It's a situation that mothers like Berry-now pregnant with her second child—hope to change.

New research from the University of Alberta shows that a large majority, 63 per cent of 1,200 Albertans surveyed, favour mental health screening during pregnancy. Some 72.7 per cent support postpartum screeningnumber that jumps to 88.5 per cent among women of child-bearing age.

Lead researcher Dawn Kingston, an assistant professor in the Faculty of Nursing, says existing research shows up to a quarter of women experience mental health problems during and after pregnancy. Screening would involve having a family doctor, midwife or obstetrician ask a set of standardized questions about a woman's mental health status, during and after pregnancy.

Screening is not just about asking a set of questions; it's always about the discussion and movement into care," said Kingston, an expert in maternal and child health. "Screening itself is not treatment; it is a way of getting women help."

Kingston says universal screening is already being used in Australia, which has run a high-profile public awareness campaign about mental health issues, including perinatal depression. Perinatal screening is one of the top goals of Alberta's new mental health strategy, and Kingston was approached by the Alberta Centre for Child, Family & Community Research about gathering data through the U of A's Population Research Laboratory.



The randomized poll of Albertans—split equally among men and women—was conducted in 2012 and showed more than half of respondents knew who had experienced postpartum anxiety or depression When it comes to seeking help, respondents identified family doctors (38.9 per cent) and partners (17.7 per cent) as their preferred contact for support; less than five per cent said they would turn to an obstetrician, midwife, public health nurse, mental health expert or spiritual leader.

Preferred treatments included talking to a family doctor or midwife (81.6 per cent) and seeking counselling (79.8 per cent). Less than half of respondents endorsed medications or web-based self-help options.

Perinatal screening has been the subject of debate in Canada, particularly since the Canadian Task Force on Preventive Health Care recommended routine screening for depression in primary care. That was overturned vear ago, citing a lack of evidence of effectiveness or harm. Some experts contend women will identify symptoms and seek help on their own, something Kingston says is unrealistic.

The problem with mental health and pregnancy is women cannot identify if their symptoms are unique or related to pregnancy or postpartum. They cannot do it,"

In her own experience, Berry says, many women are reluctant to speak about depression and anxiety, and she is all in favour of screening to help remove the stigma and protect families. Despite feeling better, she still feels anxious about her expanding family and the responsibility of suddenly raising two young children.

It's important to at least try and open that door and start the conversation. A lot of women don't think about talking to their doctors until their symptoms are pretty severe," she said.

Kingston's study was published in BMC Pregnancy & Childbirth. The work was funded by the Alberta Centre for Child, Family & Community Research.

# U of A researcher receives \$1.9M

Alberta Cancer Foundation Staff

University of Alberta scientist is one of four successful researchers to receive funding from the Alberta Cancer Foundation' Transformative Program competition,

which originally received applications from 56 research teams in Alberta.

Jana Rieger, a speech-language pathologist with the Faculty of Rehabilitation Medicine and research director at the Institute for Reconstructive Sciences in Medicine (iRSM), will receive \$1.9 million over the next five years for her project.

Rieger works with head and neck cancer patients at Misericordia Hospital's iRSM to im-

prove their quality of life. After life-saving treatment, patients require reconstructive surgery to restore their appearance and the essential functions that most of us consider natural—the ability to speak, and to chew well enough to eat and swallow food. Swallowing impairments often lead to nutritional deficiencies or tube-feeding dependencies, and rehab for these patients can include countless hours and trips to clinics for assessments.

Rieger and her team will use the Alberta Cancer Foundation investment to test a technology that can be used remotely and comfortably in a patient's home. An adhesive sensor is applied under the jaw, and the technology sends patient data to health-care professionals anywhere in the province. This will allow patients to be more independent during and after treatment, while still receiving the care they need.

"It's an important conversation about whether we've done enough for the survivors of head and neck defects, and the medical community has really embraced the new mission of doing more," Rieger says. "Of course, the first focus will always be a cure. But now we all understand that's just the start. After their treatment, after they survive, we must do our best to give patients back as much of their lives as possible."

"Every day, 43 Albertans hear the words, 'You have cancer,'" says Myka Osinchuk, CEO of the Alberta Cancer Foundation. "One way we can propel discovery and make a difference for those 43 people is by creating an environment for collaboration—bringing science, patients and care together in a new and innovative way. That's what these investments will do.

The new "transformative program" funding is part of the foundation's commitment to invest \$120 million toward cancer research, treatment and care by 2017.



Helping nurse nursemaid's elbow

ulled elbow, also known as "nursemaid's elbow," is a common injury in children under six years old, because the immature elbow joint may dislocate more easily. Though the process to treat the injury takes only a few minutes, children and their parents may wait for hours in the emergency room before they see a physician. But Andrew Dixon, assistant professor of pediatrics in the Faculty of Medicine & Dentistry, says children's discomfort-and demand on emergency room resources—could be lessened if triage nurses could treat the injury.

Dixon led a trial at the Children's Hospital of Eastern Ontario to investigate the success rate of nurse led versus physician-led treatment for pulled elbow. An informal survey of pediatricians throughout Canada determined that they would consider implementing nurse-led treatment as routine protocol if their success rate was within 10 per cent of the physician success rate. The study was published in the Canadian Medical Association Journal.

"From our experience, nurses are good at identifying pulled elbows,"

Dixon said. "We thought that if we could teach them to reduce the injury, then these kids who are waiting, in pain, for several hours in the emergency room to see the physician, could be treated by a triage nurse within minutes of arrival and feel better almost immediately."

About 60 nurses were trained in the technique. The protocol outlined for the study dictates that hyperpronation—the technique of turning the forearm inward—should be attempted first. If the child isn't using the arm normally within 10 minutes, supination-flexion-turning the arm outward and ending with flexing movement—is the next step. If the injury persisted after nurse treatment, children were placed in line in the traditional emergency system to await physician treatment. All patients were seen by a physician before being discharged home

Over a year, triage nurses and physicians were assigned random days to lead treatment of the injury. Results showed that nurses came slightly short of their goal: they had an 85 per cent success rate, compared with the physicians' 97 per cent.

Dixon suspects the nurses were hesitant to perform the procedure

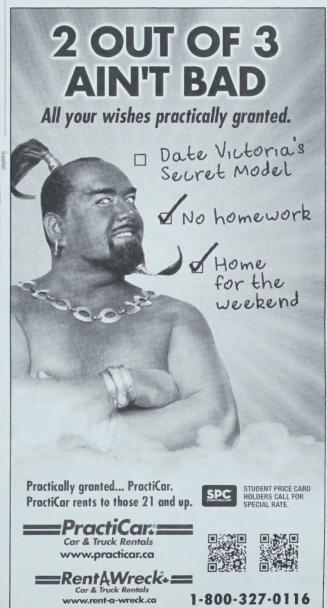


Andrew Dixon shows how to treat a pulled elbow on a young patient.

because it is outside their traditional training, and their exposure during the trial was limited. With 124 children treated by nearly 60 triage nurses, each nurse only completed one or two procedures

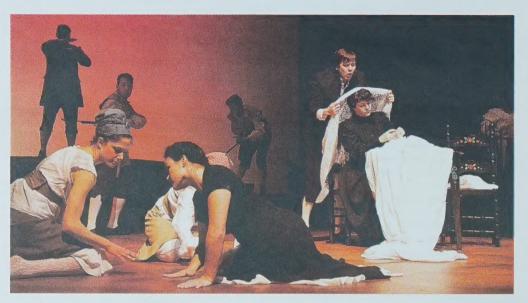
"I think some of [the nurses' hesitancy] was [due to] comfort and experience that still needed to develop," he said, noting that the nurses did not attempt a second reduction in 79 per cent of failed cases. If those cases were excluded because of deviation from standardized protocol, nurses would have fallen in the accepted margin.

"Over time, once all of those nurses have done 10 treatments, are they going to be better? I think they will be," he said. "The only way to know that is to go forward and look at the numbers after implementation of the protocol and see where they are a year down the road."



It's a nice day for a

# Plood Wedding







Blood Wedding, Studio Theatre's final production of the 2013-14 season, was inspired by a true story about a bride who had disappeared with her lover, her own cousin, on her wedding day. Director Kathleen Weiss, U of A drama chair, says Blood Wedding is a play she has "always loved and wanted to direct for years."

PHOTOS TERAH JANS TOP ED ELLIS CENTRE/BOTTOM

